



# international

COMMERCIAL POOL DIVISION

## THE COMMERCIAL POOL DIVISION OF INTERNATIONAL SWIMMING POOL CORPORATION . . . .

provides a fully integrated manufacturing, design, and service facility for the swimming pool industry. In addition to offering a complete line of high quality swimming pool equipment, International's staff of engineers, specialists in the field of pool design and construction, offers without obligation an advisory service to architects and engineers, aimed at bringing the most modern engineering practices to the following aspects of pool design:

site planning—Grade and layout problems, consideration of soil conditions in connection with the foundation design of the pool structure.

structural design—Reinforced concrete and gunite pools, in addition to specialized designs of diving towers in reinforced concrete and steel. Working specifications and drawings for all types of installations.

hydraulic design—The design of peripheral piping systems. Filter house planning and layout for maximum space utilization and efficiency, in either rapid sand pressure or diatomaceous earth filtration systems. The application of the governing codes to specific design problems.

general service—A service having as its objective the prompt rendering of technical advice on such diverse subjects as pool modernization and repair, equipment specification, pool maintenance and water treatment problems.

International Swimming Pool Corporation seeks to increase the scope and variety of swimming pool technology by a program of research for the improvement of equipment and construction methods, through an organization equipped to satisfy the most exacting technical needs of the architect and engineer.

## DECK EQUIPMENT

### **"500" GROUP**



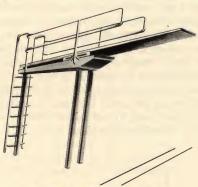
5 AND 10 METRE TOWER, F-501

Prefabricated of structural steel with lightweight concrete platforms, select vertical grain prefinished redwood steps and intermediate platforms. Available as a complete structural steel unit, with precut redwood. Shop drawings for concrete platform and foundation work included. Deck space requirements, 6' x 7'.



LIFE GUARD CHAIR, F-504

Prefabricated of structural steel, aluminum, and redwood, complete with umbrella rack, life ring, stainless steel handrail, and contoured fiberglas seat. Available in choice of colors and finishes.

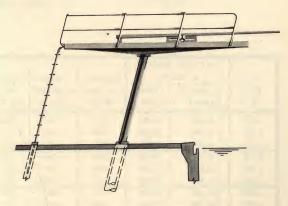


3 METRE DIVING STAND, F-502

Prefabricated of structural steel and aluminum, select vertical grain prefinished redwood steps and two sets of stainless steel handrails. The safety handrail for public use is quickly disengaged and replaced with a lower handrail which will, for competitive diving, not interfere with the diver's arm movements. Available with foot adjustable fulcrum or lock-nut fulcrum, and a choice of colors and finishes. Supplied with wood or aluminum diving boards (see page 7).

#### 1 METRE DIVING STAND, F-503

Identical to the 3 Metre Diving Stand, F-502. Differs only in height above water. Deck space requirements, 2' x 7'.



1-5 METRE HYDRAULIC PLATFORM, F-533

Hydraulic diving tower adjustable for 1 to 3 metre springboard Hydraulic diving tower adjustable for 1 to 3 metre springboard diving, and 3 to 5 metre platform diving. The springboard is offset to side of the 8' x 16' platform and pivots back for unobstructed platform space. The adjustable front fulcrum is readily removed. The hydraulic platform is a requisite for the instruction of board and tower diving. The diving pupil may be gradually acclimated to the use of the 5 metre platform and the 3 metre board. Lightweight concrete and steel platform, available with handrails to individual specification. platform, available with handrails to individual specification.

## **FILTERS**

#### SWIMMING POOL FILTRATION

The efforts of the American Public Health Association, dating back to 1918, in promulgating high standards of pool water sanitation have resulted in recommended specifications for filter systems of the highest efficiency. The importance of pool water clarity demands standards of filtration in excess of those for drinking water. Today, almost all state and public

### RAPID SAND PRESSURE FILTERS

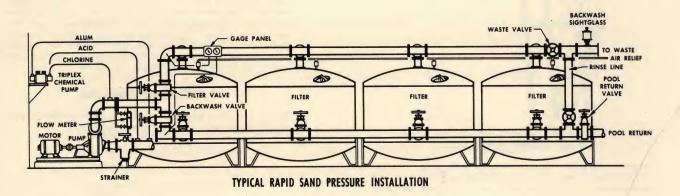
#### GENERAL INFORMATION

The filter media consists of a layer of fine sand usually 20 to 24 inches deep, supported on layers of graded gravel. The required filter rate is 3 gpm per square foot of filter area, all tanks filtering simultaneously. Pressure gauges show the need for backwashing by indicating head loss through the system. Backwashing is accomplished by reversing the flow through each tank individually; dirt and debris are washed out to waste at a rate of 12 or 15 gpm per square foot depending upon specific code requirements. The filtering action of the sand is augmented by a coagulating agent such as potassium alum to remove the finer particles of suspended matter.

#### SPECIFICATION ABSTRACT

Filter systems are available as complete units. Tanks are fabricated to ASME standards with a working pressure of 50 psi and a test pressure of 200 psi. Each tank shall be provided with an 11" x 15" manhole, couplings, drain plugs, air relief valves, top distributor system, dome type underdrains in 54" tanks and smaller, lateral underdrain system in larger tanks, all face piping of schedule 40 wrought steel, bronze or iron body bronze mounted gate valves, adjustable supports, gauges and sight glasses. Each filter system shall be provided with a properly sized pump, motor, and strainer. Pumps shall be of the centrifugal or of the self-priming centrifugal type. Motors shall be of sufficient horsepower and available in single and three phase, 1750 or 3450 rpm, and 220/440 volts.

Media specifications supplied with filter. Chemical feeders shall be positive displacement pump type, for chlorine, pH corrective and alum feeds.



	MAX. POOL IN GA		NO. & DIA.	TOTAL	FILTER	BACKWASH	PUMP	FLOOR AREA	FACE			GS OF FILTER REQUIRED	SHIPPING
CAT. #	6 HOUR TURNOYER	8 HOUR TURNOVER	OF TANKS INCHES	FILTER AREA SQUARE FT.	RATE GPM *(2)	RATE GPM *(3)	SIZE H.P.	REQUIRED FEET *(1)	PIPING	CHLORINE *(4)	SAND	GRAVEL	WEIGHT POUNDS *(5)
A-114	30,400	40,500	4-36	28.2	84.9	B4.9	2	6 x 18	21/2	10	48	40	5,000
A-104	40,500	54,000	3-48	37.5	112.4	150	2	7 x 18	3	10	63	57	6,800
A-115	54,000	72,000	4-48	50.3	150	150	3	7 x 22	3	20	84	76	9,100
A-106	63,500	84,600	3-60	58.B	176.5	235	5	8 x 21	31/2	20	117	90	10,400
A-117	84,600	113,000	4-60	78.4	235	235	5	8 x 26	31/2	20	156	120	14,000
A-108	91,500	122,000	3-72	84.6	254	339	5	9 x 24	4	40	171	132	12,200
A-119	122,000	163,000	4-72	113	339	339	71/2	9 x 30	4	40	228	176	16,300
A-112	162,500	217,000	3-96	150.5	452	603	10	11 x 30	5	40	303	222	24,000
A-113	203,000	276,000	3-108	191	574	764	10	12 x 33	6	75	384	282	31,400
A-123	218,000	291 000	4-96	201	603	603	10	11 x 3B	5	75	404	296	32,200
A-124	275,000	368,000	4-108	255	764	764	15	12 x 42	6	75	512	376	41,500
A-125	325,000	435,000	6-96	302	905	603	20	22 x 31	6	100	606	444	48,200
A-126	412,000	550,000	6-108	382	1145	764	30	24 x 34	8	100	770	563	62,700

- NOTES: (1) Includes average operating space, pump, and motor; 7 feet 6 inches ceiling height required.
  - (2) Based on application rate of 3 GPM/square foot of filter area.
  - (3) Based on backwashing tanks individually at 12 GPM/square foot of filter area.
  - (4) Chlorinator capacity in pounds per day. 8 hour turnover.
  - (5) Weight of tank & face piping only.
- NOTE: Intermediate size vertical tanks and horizontal tanks made to order.



### PRESSURE DIATOMITE FILTERS

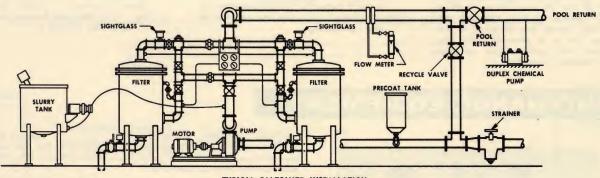
#### GENERAL INFORMATION

The filtering media is a 1/8 inch deposit of diatomaceous earth coated on the filter element by the pressure of flowing water. The resultant effluent is clear and "sharp" due to the fine porosity of the media. A coagulating agent is not required. The filter rate is usually set by code requirements at 2 gpm per square foot of filter area. Pressure gauges show the need for backwashing by indicating head loss through the filter. Backwashing the filter removes the spent diatomite media and requires a minimum of water. Filter cycles are lengthened by the addition of diatomite slurry during the filter cycle, producing maximum efficiency of operation. Space requirements are approximately 1/2 that of sand filters. Large filtering capacity may be installed in a limited area.

#### SPECIFICATION ABSTRACT, THE "Aquakleer" FILTER

Diatomite filters shall be of the pressure upflow type employing vertically suspended rigid elements consisting of perforated flanged brass tubes covered by a monel wire mesh cloth calenderized to produce a smooth surface. Tanks shall be constructed to meet ASME standards. Working pressure shall be 50 psi, test pressure shall be 200 psi. Tanks shall be sandblasted smooth, interior surfaces shall receive a 6 mil coating of polymerized phenolic resin; exterior surfaces shall be phosphate treated, primed, and enameled. Face piping shall be schedule 40 galvanized wrought steel, with bronze or iron body bronze mounted gate valves. There shall be supplied pressure and vacuum gages, sight glasses, precoat tank, and slurry feeding system. Pumps, motors, and strainers, described under "Pressure Sand Filter—Specification Abstract" shall also be supplied.

Chemical feeders shall be positive displacement pump type, for chlorine and pH corrective.



TYPICAL DIATOMITE INSTALLATION

	MAX. POOL CAPACITY IN GALLONS		NO. & AREA	TOTAL	FILTER	PUMP	FLOOR AREA	MINIMUM	FACE		SHIPPING
CAT. #	6 HOUR TURNOVER	8 HOUR TURNOVER	OF TANKS SQUARE FT.	FILTER AREA SQUARE FT.	RATE GPM *(2)	SIZE H.P.	REQUIRED FEET *(1)	HEIGHT *(5) IN.	PIPING IPS	CHLORINE *(4)	WEIGHT LBS. *(3)
B-104	32,400	43,200	1-45	45	90	11/2	5 x 10	77	2	10	600
B-105	43,100	57,600	1-60	60	120	3	5 x 10	96	21/2	10	750
B-106	54,000	72,000	1-75	75	150	3	6 x 11	85	3	20	875
B-107	72,000	96,000	1-100	100	200	5	6 x 11	96	3	20	950
B-113	86,400	115,000	2-60	120	240	71/2	6 x 12	96	21/2	40	1600
B-114	108,000	144,000	2-75	150	300	10	18 x 8	85	3	40	1880
B-108	108,000	144,000	1-150	150	300	10	9 x 12	95	4	40	2250
B-115	144,000	192,000	2-100	200	400	15	18 x 8	96	3	40	2040
B-118	162,000	216,000	3-75	225	450	15	19 x 12	85	3	75	2800
B-109	175,000	234,000	1-243	243	486	15	13 x 12	95	5	75	3250
B-116	216,000	288,000	2-150	300	600	15	21 x 9	95	4	75	4850
B-120	288,000	384,000	4-100	400	800	20	17 x 12	96	3	100	4000
B-117	350,000	467,000	2-243	486	972	20	16 x 13	95	5	100	8000
B-119	524,000	700,000	3-243	729	1458	25	21 x 12	95	5	200	12,000

NOTES: (1) Includes average operating area, pump, motor, slurry tank and precoat tank.

- (2) Based on application rate of 2 GPM/square foot of filter area.
- (3) Weight of tank & face piping only.
- (4) Chlorinator capacity in pounds per day. 8 hour turnover.
- (5) Minimum ceiting height required for septa removal.

## GENERAL EQUIPMENT



### FILTER EQUIPMENT



CHEMICAL FEEDER, D-104, TRIPLEX. Precision Model S3, positive displacement pump, operates against back pressure of 125 psi. Used simultaneously as hypochlorinator, pH regulator, and alum feeder. Recommended for rapid sand pressure filter systems.



GAS CHLORINATOR, D-103. Maximum capacity 50 lbs. per day. Fischer & Porter Model 70C1010, manually operated, solution feed, vacuum type, designed to feed chlorine gas at a controlled rate. Also equipped with positive-acting, spring-opposed diaphragm regulators.



CHEMICAL FEEDER, D-105, DUPLEX. Precision Model SD, positive displacement pump, operates against back pressure of 125 psi. Used simultaneously as hypochlorinator and pH regulator. Recommended for diatomite filter systems.



FLOWMETER—MANOMETER TYPE, D-110. Fischer & Porter No. 735-560 complete with orifice flanges and plates. Recommended for large installations.



GAS CHLORINATOR, D-102. Maximum capacity 200 lbs. per day. Fischer & Porter Model 70C1110, manual and semi-automatic control. Corrosion-proof inside and out. Gas flow rate is maintained by positive-acting spring-opposed diaphragm regulators and built-in flowmeter.



FLOWMETER—ROTAMETER TYPE, D-109. Fischer & Porter No. 71K1000, direct reading; orifice plates and flanges not required. For pipe sizes through 8".

## MAINTENANCE EQUIPMENT



VACUUM CLEANERS. 18" vacuum head, H-101. 12" vacuum head, H-102. Complete with sectional extension handle, hose, and float assembly, and connector to vacuum outlet fitting. Also available with tow-line assemblies for large commercial pools.

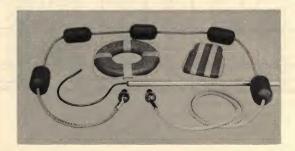
WATER TEST KIT, H-107. Color standards for pH and chlorine tests to meet the most exacting code requirements. Chlorine residual standards from 0.0 to 1.0, pH ranges from 6.3 to 8.4.

POOL THERMOMETERS. Chrome plated brass case, H-108. Rigid plastic case, H-109.

LEAF SKIMMER, H-110. Lightweight with replaceable screen and 14' aluminum handle, G-110.

The equipment shown is part of a complete line of maintenance equipment. Individual items are recommended by International engineers to conform to the operating requirements of a specific pool.

## SAFETY EQUIPMENT



LIFE LINE AND FLOAT ASSEMBLY. %'' nylon rope (G-101) with 5'' x 9'' plastic floats (G-104) secured with chromed bronze terminals (G-105). This assembly is used in conjunction with life line sockets and eye bolts to separate diving and play areas.

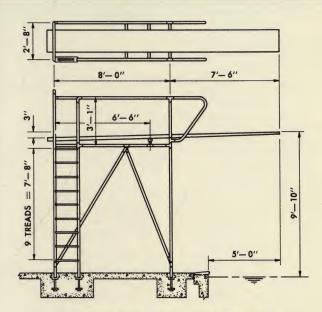
LIFE RING, G-108. High buoyancy, surface finished foam rubber.

KICKBOARDS, G-107.  $12^{\prime\prime}$  x  $18^{\prime\prime}$  fiberglas covered styrene foam. For swimming instruction.

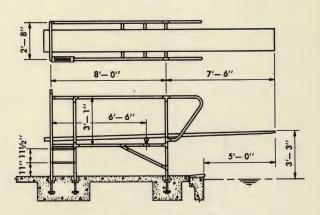
LIFE HOOK, G-109. 14" diameter hook with 14' aluminum handle (G-110) for life saving and instructional purposes.

The equipment shown is for minimum swimming pool safety. A complete line of safety equipment is available for all types and sizes of pools.

### "100" GROUP

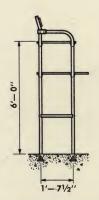


3 METRE DIVING STAND-OFFICIAL, F-105



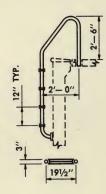
1 METRE DIVING STAND-OFFICIAL, F-106

Removable type. Formed 1.9" O.D. stainless steel complete with deck anchors, adjustable rubber fulcrum, and non-slip treads. split bronze, brushed chrome plated fittings.



**LIFE GUARD CHAIR, F-107.** Hardwood seat and footrest. Chair is standard height, 6 feet above the deck for maximum view and unobstructed take-off. Removable type.

LADDERS. 3 TREAD, F-109. 4 TREAD, F-110. Stainless steel assembly of 1.9" O.D. rails and formed non-slip treads available in specialized shapes to fit any pool, or as grab or stair rails for integral pool wall steps, complete with deck anchor sockets.



## **DIVING BOARDS**

Diving boards are available in 12, 14, and 16 foot lengths, fabricated of prime, clear, vertical grain Douglas Fir, laminated under pressure, coated with fiberglas and polyester resin with integral sand tread for weather resistance and long life. Diving boards are also available in aluminum.

DOUGLAS FIR	BOARDS	ALUMINUM	BOARDS
F-127	12'	F-130	12'
F-128	14'	F-131	14'
F-129	16'	F-132	16'

THE ITEMS LISTED IN THIS CATALOG ARE OF THE SIZES AND TYPES MOST FREQUENTLY USED. INTERNATIONAL CAN SUPPLY A COMPLETE RANGE OF SIZES AND TYPES FOR ANY SWIMMING POOL NEED.

## POOL <u>Fitting</u>s





VACUUM OUTLET FITTING. Chromed bronze with removable plug for connection of the vacuum cleaner hose to the recirculating pump. E-108.



MAIN DRAIN FRAME AND GRATE. Chromed bronze removable grate and fixed chromed bronze frame. A 12 x 12 grate gives 63 square inches of open area, a 15 x 15 grate gives 98 square inches. The main drain well is formed in concrete. E-110, 12" x 12". E-122, 15" x 15".



ADJUSTABLE INLET FITTING. Chromed bronze with adjustable face plate for equalizing the flow through multiple inlet installations. E-104, 11/2" lps. E-105, 2" ips.

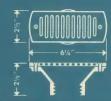


NO-LEAK FITTING. Recommended for formed concrete construction to prevent seepage at thru-the-wall piping. Available in cost bronze to 2'' ips, and in galvanized cast Iron from  $2V_2''$  to 4'' ips.

Cast B	ronze	Cast Iron	Cast Iron			
E-111	1"	E-114 2	1/2"			
E-112	11/2"	E-115 3	"			
E-113	2''	E-116 4	"			



LIFE LINE SOCKETS AND EYE BOLT. Chromed bronze concrete insert with removable chromed steel eye bolts. Fitting and eye bolt are flush with the pool wall for maximum safety. E-120.

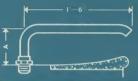


GUTTER DRAIN. Chromed bronze removable grate on cast bronze 2" lps body. Grate orifice insures proper drainage. E-117.

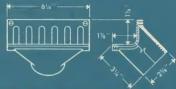


UNDERWATER LIGHTS. Wet niche type of chromed bronze and copper construction complete with forming shell, conduit, deck junction box, and wiring. Light units are manufactured under UL and CSA approval. Provide approximately one watt per square foot of pool surface.

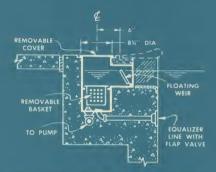
E-101	400	wat
E-102	500	wat
F-103	1000	wat



FILL SPOUT. Chrome plated brass spout eliminates cross connections to water supply by an air break over the pool coping, and is usually installed under diving stands. F-123,  $1\frac{1}{2}$ " ips. ("A" dlm. is 6"). F-124, 2" ips. ("A" dim. is  $8\frac{1}{2}$ ").



GUTTER DRAIN—ANGLE TYPE. Chromed bronze removable grate on cast bronze 2" lps body. The vertical section will continue to drain if the bottom of the grate is covered with debris. E-118.



AUTOMATIC SKIMMER. Cast aluminum, with plastic flap-type weir, perforated brass basket, brass throttling plug, equalizer line, anti-air lock flap valve, and chromed bronze pool fitting. Operates from pump suction, effectively skims water surface and removes floating debrls. Self-adjusting weir over a 5" differential in water depth. A skimmer is usually provided for approximately each 500 square feet of pool surface. E-119.

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1 8 8 E A S T P O S T R O A D

WHITE PLAINS, NEW Y O R K

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